

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND**

UNITED STATES OF AMERICA

v.

HOAU-YAN WANG,

Defendant.

CRIMINAL NO: TDC-24-211

GOVERNMENT’S TRIAL BRIEF

The United States of America, through its undersigned attorneys, respectfully submits its trial brief in the above-captioned case.

I. The Indictment

On June 27, 2024, a grand jury sitting in the District of Maryland returned an Indictment charging defendant Hoau-Yan Wang with (a) one count of major fraud against the United States, in violation of 18 U.S.C. §§ 1031 and 2; (b) two counts of wire fraud, in violation of 18 U.S.C. §§ 1343 and 2; and (c) one count of false statements, in violation of 18 U.S.C. §§ 1001 and 2. The Indictment alleges a scheme executed by the defendant in which he fraudulently obtained grant funding from the U.S. National Institutes of Health (“NIH”), a medical-research agency that is part of the U.S. Department of Health and Human Services, by making materially false representations relating to his scientific research in NIH grant applications and other documents. *See generally*, ECF No. 1.

As laid out in the Indictment, the defendant worked as a tenured professor in the School of Medicine at City University of New York (“CUNY”), a New York State public university that received state and federal funds. In addition to his teaching duties, the defendant ran a laboratory at CUNY that conducted scientific research, including in the area of neuroscience, and the

defendant obtained significant grant funding to pay for certain expenses in his laboratory at CUNY, including salaries and laboratory supplies.

Beginning in at least 2005, the defendant was a paid advisor and consultant to Cassava Sciences, Inc. (“Cassava”), a publicly traded biopharmaceutical company based in Austin, Texas. Cassava focused on the development of (a) PTI-125 as a potential treatment for Alzheimer’s Disease, and (b) SavaDx, a potential diagnostic test used to detect Alzheimer’s Disease in a biological sample. In his role as an advisor and consultant, the defendant served as a scientific investigator on various projects and helped Cassava secure federal grant funding for scientific research. The defendant worked on the development of both PTI-125 and SavaDx with Cassava. As part of his compensation from Cassava, the defendant received a stock-option agreement and a bonus plan, each of which was tied to Cassava’s stock performance.

From in and around May 2015 and continuing through at least in and around April 2023, the defendant fraudulently caused to be submitted, through Cassava, grant proposals to NIH based upon purported scientific research involving PTI-125 and SavaDx, including Western blotting. Western blotting is a laboratory technique that is used to detect a specific protein or the charge of protein in a biological sample, reflected by visible bands that appear in the experiment and the corresponding quantification of the bands.

As a result of the applications containing the defendant’s false and fraudulent representations, including fabricated Western blots, NIH awarded Cassava millions of dollars in funding from approximately 2017 to 2021. NIH’s payments were initiated electronically to Cassava from NIH, and the defendant was indirectly paid from these proceeds. The defendant used NIH grant funds provided indirectly through CUNY for, among other things, his salary, the

salaries of his research assistants, and laboratory supplies and equipment, including to support his continued research for Cassava.

The purpose of the defendant's scheme and artifice to defraud was to fraudulently obtain NIH funding to enrich himself through continued and future compensation by (a) making materially false, fraudulent, and misleading statements to NIH relating to his scientific research underlying PTI-125 and SavaDx, and (b) concealing and causing the concealment of the true facts about said research.

II. Anticipated Testimony and Evidence

The trial of defendant Hoau-Yan Wang is scheduled to commence on October 20, 2025. At trial, the government intends to call witnesses who will explain NIH's grant process, the defendant's involvement with Cassava, including his work on PTI-125 and SavaDx, the defendant's fabrication of Western blot results associated with PTI-125 and SavaDx, the defendant's provision of fabricated Western blot results to Cassava for incorporation into Cassava's grant proposals to NIH, and the various means by which the defendant attempted to conceal his wrongdoing from law enforcement and NIH. The government intends to present the majority of its case-in-chief through the testimony of the following categories of witnesses:

NIH Witnesses: The government will call several witnesses from NIH, including individuals who reviewed and approved Cassava's grant applications, which were predicated on the defendant's fabricated Western blot results and scientific research. These individuals will explain NIH's grant process, the receipt and review of Cassava's grant applications for PTI-125 and SavaDx, NIH's reliance on the information and scientific research in the applications to be truthful, accurate, and reliable, the ultimate approval of the applications, and the disbursement of millions in grant funds to Cassava based on material representations made in the grant applications.

Law Enforcement: The government will present testimony from the Special Agent at the Federal Bureau of Investigation (“FBI”) who investigated this matter. The Special Agent will testify about the origin of the investigation, his interviews of the defendant, his service of a grand jury subpoena on the defendant for records related to PTI-125 and SavaDx, such as Western blot images, the search warrant that was executed at the defendant’s residence, resulting in the seizure of electronic devices from the defendant, and the discovery of Western blot images on the defendant’s devices related to Cassava’s grant applications to NIH for PTI-125 and SavaDx. The Special Agent will further testify about the nature of the Western blot images he found on the defendant’s devices – images that the defendant failed to produce despite his receipt of the grand jury subpoena – and how he connected the concealed images with the Western Blot images in Cassava’s NIH grant applications. The Special Agent will testify that he provided the recovered images to an expert for further analysis.

Expert Witness: As the Court is aware from the September 30, 2025 *Daubert* hearing, the government will present expert testimony from Dr. Paul Brookes, a professor at the University of Rochester Medical Center and an expert in Western blotting technique and scientific image analysis. Dr. Brookes will explain to the jury what a Western blot is, how that laboratory technique is conducted, and how the results of the Western blot are visualized. Dr. Brookes will testify about the Western blot images he received from law enforcement and how he compared those images to the Western blots found in Cassava’s NIH grant applications. Dr. Brookes will offer his expert opinion that (a) certain images he received from law enforcement are the source images for certain Western blots in Cassava’s applications, and (b) the horizontal bands in the Western blots in Cassava’s NIH grant applications are not present in the source image, among other opinions further disclosed at the *Daubert* hearing.

Defendant's Graduate Students: The government will also call graduate students who worked with the defendant in his laboratory at CUNY and were supervised by the defendant. These students will testify that they learned Western blotting while in the defendant's laboratory and under his supervision. These students will explain that they never saw Western blot images with white boxes during their time in the defendant's laboratory and creating Western blot images with white boxes was not consistent with their training, as scientific protocol requires that contrasting and color editing of Western blot images be applied to the full image, not portions of the image.

Scientific Journal Editor: Finally, the government will call the editor-in-chief of a scientific journal who published an article co-authored by the defendant that included his scientific research, including Western blot results, on PTI-125 and SavaDx (that included figures that were also included in NIH grant applications). The editor will explain that, when publishing the defendant's article, she relied upon the truthfulness and accuracy of the representations and scientific research included in the article. She will explain that, once concerns were raised by third parties of the accuracy of the scientific research in the defendant's article, she received Western blot images from Cassava in order to compare those images to the Western blots in the published articles, but the images she received were the same as what was published in the article. She will further explain she did not receive the full original Western blots she expected.

The government will corroborate these witnesses' accounts with business records, e-mails, text messages, audio recordings, photographs, and other documentary evidence. Taken together, the anticipated testimony and evidence will establish that the defendant (a) devised and executed a yearslong scheme and artifice to defraud NIH in order to enrich himself, and (b) knowingly and

willfully made materially false, fictitious, and fraudulent statements and representations to NIH in a grant proposal.

III. Anticipated Testimony and Evidence

Given the volume of evidence likely to be introduced during the upcoming trial, the government sets forth the admissibility of its anticipated evidence below.

A. Stipulations

In order to streamline the presentation of evidence at trial, the parties are negotiating stipulations to the admission of certain evidence. To the extent the parties stipulate to facts related to the elements of the charged crimes, the government asks the Court to permit the stipulations to be marked, admitted as evidence in the case, and submitted to the jury. *United States v. Aragon*, 983 F.2d 1306, 1309 (4th Cir. 1993) (allowing stipulations as to testimony to be sent to the jury). The government will also read the stipulations into the record at relevant times during its presentation of the evidence.

B. Admissibility of Summary Charts

At trial, the government will also seek to admit summary charts of evidence already in the record under Rule 611(a) of the Federal Rules of Evidence. Rule 611(a) provides that “the court should exercise reasonable control over the mode and order of examining witnesses and presenting evidence so as to (1) make those procedures effective for determining the truth; (2) avoid wasting time; and (3) protect witnesses from harassment or undue embarrassment.” Fed. R. Evid. 611. The Fourth Circuit has held that summary charts are admissible under Rule 611(a) in order to “facilitate the presentation and comprehension of evidence already in the record.” *United States v. Simmons*, 11 F.4th 239, 262 (4th Cir. 2021) (citation omitted).

The foundation for Rule 611 charts are that (1) the charts are based on competent evidence already before the jury; (2) the evidence underlying the charts is provided to the other side to test the charts for accuracy; (3) the person who prepared the charts is available for cross examination, and (4) the jury is instructed concerning their consideration of the summaries so that they do not rely upon the charts as “independent evidence” and instead focus on “the evidence upon which the chart is based.” *United States v. Johnson*, 54 F.3d 1150, 1159-1160 (4th Cir. 1995).

In this case, the government anticipates introducing summary charts of Dr. Paul Brookes visual analyses of certain Western blot images associated with NIH figures that will themselves be submitted to the jury; those analyses will be presented to the jury during Dr. Brookes’s testimony but will also aid the jurors in later considering that testimony and his analyses during deliberations. These charts meet each of the *Johnson* factors described above. The jury is more likely to understand the evidence through summary charts and presenting the evidence with the charts will be more efficient for the jury in considering and evaluating the images and Dr. Brookes’ testimony. All the underlying data and records have been produced to the defendant in discovery.

C. Authentication of Documentary Evidence

As a condition precedent to the admission of evidence, the proponent of that evidence must satisfy the requirements for authentication. To do so, Federal Rule of Evidence 901 requires the United States to “produce evidence sufficient to support a finding that the item is what [the United States] claims it is.” The Fourth Circuit has explained that “[t]he burden to authenticate under Rule 901 is not high—only a *prima facie* showing is required.” *United States v. Vidacak*, 553 F.3d 344, 349 (4th Cir. 2009). That is because “[t]he factual determination of whether evidence is that which the proponent claims is ultimately reserved for the jury.” *Id.* (citing *United States v. Branch*, 970 F.2d 1368, 1370 (4th Cir. 1992)). The most common way to authenticate a piece of evidence

is through testimony by a witness with sufficient knowledge that the matter is what it is claimed to be. Fed. R. Evid. 901(b)(1). Many of the documents the United States will seek to introduce will be authenticated through this method.

In addition, to streamline the trial and reduce the number of witnesses in the government's case-in-chief, the government intends to introduce business records by affidavit or declaration under Rules 803(6) and 902(11) of the Federal Rules of Evidence and without the calling of a live witness. Rule 803(6) provides that the records of regularly conducted activities may be admitted through the testimony of a custodian of records or, alternatively, through use of a certification pursuant to Rule 902(11). The government further intends to introduce records generated by an electronic process or system and data copied from an electronic device, storage medium, or file pursuant to authentication Rules 902(13) and 902(14), respectively. The government provided written notice to the defendant of its intent to rely on 902(11), 902(13), and 902(14) certifications on October 6, 2025. *See* ECF No. 111.

D. Fed. R. Evidence 801

While the government can introduce the statements of the defendant under Federal Rule of Evidence 801(d)(2)(A), the defendant cannot use this same rule to introduce hearsay statements made by himself. At trial, the Court should preclude the defendant from introducing any evidence, making any statement, or asking any question that implicates his own out-of-court hearsay statements. It is well-established that a defendant may not introduce his own out-of-court statements for the truth of the matter asserted. Fed. R. Evid. 801(d), 802; *see, e.g., United States v. Wilkerson*, 84 F.3d 692, 696 (4th Cir. 1996) (holding that the defendant could not introduce his own out-of-court statements because the Rules of Evidence “do not . . . provide an exception for self-serving, exculpatory statements made by a party which are being sought for admission by that

same party”); *United States v. Marin*, 669 F.2d 73,84 (2d Cir. 1982) (“When the defendant seeks to introduce his own prior statement for the truth of the matter asserted, it is hearsay, and it is not admissible.”). To permit otherwise would place a defendant’s self-serving statements “before the jury without subjecting [him] to cross-examination, precisely what the hearsay rule forbids.” *United States v. Ortega*, 203 F.3d 675, 682 (9th Cir. 2000).

IV. Evidence and Arguments Blaming the Victim are Inadmissible

Under Federal Rule of Evidence 402, “[i]rrelevant evidence is not admissible” at trial. Under Rule 403, a court may exclude even relevant evidence “if its probative value is substantially outweighed by a danger of one or more of the following: unfair prejudice, confusing the issues, misleading the jury, undue delay, wasting time, or needlessly presenting cumulative evidence.” Fed. R. Evid. 403.

Unfair prejudice speaks to the capacity of some concededly relevant evidence to lure the factfinder into declaring guilt on a ground different from proof specific to the offense charged. *United States v. Tillmon*, 954 F.3d 628, 643 (4th Cir. 2019) (quoting *United States v. Basham*, 561 F.3d 302, 327 (4th Cir. 2009)). In other words, evidence is inadmissible when “there is a genuine risk that the emotions of the jury will be excited to irrational behavior, and...this risk is disproportionate to the probative value of the offered evidence.” *United States v. Hammoud*, 381 F.3d 316, 341 (4th Cir. 2004) (internal quotation marks and citation omitted).

Here, the defendant should be precluded from offering argument or evidence that NIH should have been more prudent or was careless, negligent, or otherwise deficient in reviewing and funding the grant applications at issue. Any claim that NIH, the victim of the defendant’s offenses, is to blame for being victimized is irrelevant under Fed. R. Evid. 401 because evidence of a victim’s negligence or lack of diligence in failing to discover a fraudulent scheme is not a defense.

Courts have regularly excluded such evidence and argument. *See, e.g., United States v. Colton*, 231 F.3d 890, 903 (4th Cir. 2000) (explaining, in a bank fraud case, “the susceptibility of the victim of the fraud, in this case a financial institution, is irrelevant to the analysis”); *United States v. Brien*, 617 F.2d 299, 311 (1st Cir. 1980) (“if a scheme to defraud has been or is intended to be devised, it makes no difference whether the persons the schemers intended to defraud are gullible or skeptical, dull or bright. These are criminal statutes, not tort concepts”); *United States v. Coyle*, 63 F.3d 1239, 1244 (3d Cir. 1995) (“The negligence of the victim in failing to discover a fraudulent scheme is not a defense to criminal conduct.”). The relevant inquiry for the jury is whether defendant had the requisite knowledge and intent to defraud the victims, not whether the victim should have detected the fraud.

Any claim of NIH’s purported lack of diligence, or the suggestion that NIH could have done more to uncover the fraud, is also inadmissible under Rule 403 because its probative value is substantially outweighed by the risk of confusing the jury as to the elements of the charged offenses. *See United States v. Biesiadecki*, 933 F.2d 539, 544 (7th Cir. 1991). For these reasons, the Court should preclude the defendant from introducing evidence or raising arguments to blame NIH.

V. Alleged Deficiencies in the Government’s Investigation or Disclosures are Irrelevant

The government conducted a lengthy and thorough investigation in this case, which culminated in the four-count Indictment of the defendant. Since then, the government has produced millions of pages of documents and worked in good faith to facilitate the defendant’s review of the voluminous material. Nonetheless, the defendant has frequently challenged the government about its investigation and discovery disclosures, often suggesting that more could have been done or that better and more fulsome productions should have been made. The

government understands that the defendant may attempt to make similar arguments at trial. Although the defendant is free to raise such issues with the Court in advance of trial, such a line of argument at trial would be irrelevant and risk confusing the jury, particularly where, as here, the defendant has not identified any connection between his unfounded accusations and the elements of the offense.

“Under our system of criminal justice, the issue submitted to the jury is whether the accused is guilty or not guilty. The jury is not asked to render judgment about non-parties, nor is it normally asked to render a verdict on the government’s investigation.” *United States v. McVeigh*, 153 F.3d 1166, 1192 (10th Cir. 1998), *cert. denied*, 526 U.S. 1007 (1999). A defendant may not put the government on trial by arguing that there was something more the government could have done to investigate the case when the defendant has not made any connection between the adequacy of the investigation and any evidence introduced at trial. *McVeigh*, 153 F.3d at 1192. Evidence elicited to support a broad claim that the government’s investigation of the case was sloppy or inadequate, without this requisite connection, is irrelevant and thus inadmissible because the jury will be called upon to determine whether the government’s investigation was good or bad and not whether the defendant is guilty or not guilty. *See United States v. Veal*, 23 F.3d 985, 989 (6th Cir. 1994); *United States v. Cordova*, 157 F.3d 587, 594 (8th Cir. 1998) (upholding exclusion of “exhaustive exploration of things not done in the “investigation” as “time-consuming and of little relevance” because “real issue at trial was whether the government’s witnesses were truthful and whether their testimony was sufficient to convict”).

Here, the jury is asked only to determine whether the evidence, or the lack thereof, is sufficient to support a finding of guilt to the counts alleged in the Indictment. It is irrelevant what investigative steps could have been taken, only whether the steps that were taken were sufficient

to prove the matter beyond a reasonable doubt. Further, questioning regarding what steps could have been taken invites the jury to speculate on what the results of those techniques would have been had they in fact been taken.

To the extent that the Court determines that the defendant is allowed to elicit some evidence regarding a specific technique not taken with respect to a piece of admitted evidence, the government requests the following instruction be given at the time of that questioning:

You may consider these facts [insert evidence] in deciding whether the government has met its burden of proof, because you should look to all of the evidence or lack of evidence in deciding whether the Defendant is guilty. However, there is no legal requirement that the Government use any specific investigative techniques or all possible techniques to prove its case. Your concern is to determine whether or not the evidence admitted in this trial proves the defendant's guilt beyond a reasonable doubt.

United States v. Mason, 954 F.2d 219, 222 (4th Cir. 1992).

Moreover, should the Court allow the defendant to open the door into this line of inquiry and argument, then the government requests that it be permitted to rebut the defendant's argument with law enforcement witnesses who will testify about the various steps that were taken in conjunction with this investigation, how investigations generally proceed, and why certain investigative tools or techniques are not often used under similar circumstances.

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CONCLUSION

In sum, the government submits this trial brief to provide a summary of the anticipated evidence at trial, the grounds for the admissibility of that evidence, and categories of inadmissible evidence and arguments at trial.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing was filed with the Clerk of the Court using the CM/ECF system, which will send notice to all counsel of record.

_____/s/
Kashan Pathan, Trial Attorney
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